Element Performance Inspection (EPI)
1.1.2 Appropriate Operational Equipment (OP)

Purpose of this Element (Air Carrier's responsibility):
To ensure that aircraft are equipped to conduct safe operation over the intended route.

Objective (FAA responsibility):
To determine if the Air Carrier adheres to its procedures and controls for the Appropriate Operational Equipment.

Specific Instructions for this EPI:
To accomplish this EPI, the inspector should familiarize himself/herself with the route requirements and equipment type utilized by the Air Carrier for the intended route. Available aircraft that have been scheduled for a specific route should be inspected to ensure that the required equipment is installed and operational in accordance with the Air Carrier's approved Maintenance Program (AW only).

Related EPIs:

- 1.1.1 Aircraft Airworthiness Requirements (AW)
- 1.3.3 Maintenance Facility / Main Maintenance Base (AW)
- 3.1.3 Airmen Duties / Flight Deck Procedures (OP)
- 5.1.1 Line Stations (AW)

1.1.2 Appropriate Operational Equipment

To meet this objective, the inspector will accomplish the following tasks (at the inspection locations where applicable):

1. Review the FAA Guidance and Specific Regulatory Requirements (SRR) included in the supplemental information section of this EPI.
2. Review the associated SAI, with emphasis on the Controls Attribute section.
3. Review the Manuals program or process related to the Appropriate Operational Equipment process.
4. Review route/airport specific operational equipment requirements.
5. Inspect aircraft for the Appropriate Operational Equipment.

To meet this objective, the inspector will answer the following questions:

1. Were the following performance measures met:

1.1 The Air Carrier has specified the required operational equipment by the intended route for its aircraft.	❑ YES ❑ NO	**If no, explain:**
1.2 The observed aircraft was equipped with the Appropriate Operational Equipment for its intended route.	❑ YES ❑ NO	**If no, explain:**
1.3 All Lower Landing Minimums required equipment was onboard the aircraft and met operational requirements in accordance with the Air Carrier's procedures.	❑ YES ❑ NO ❑ N/A	**If no or N/A, explain:**
1.4 All NAV/COM equipment required for the intended route of flight was onboard the aircraft and functioned properly.	❑ YES ❑ NO	**If no, explain:**
1.5 All Reduced Vertical Separation Minimum (RVSM) required equipment was onboard the aircraft and met operational requirements in accordance with the Air Carrier's procedures.	❑ YES ❑ NO ❑ N/A	**If no or N/A, explain:**
1.6 All route specific required airmen information was current and onboard the aircraft. [SRR 121.549(a)]	❑ YES ❑ NO	**If no, explain:**
1.7 <Deleted>		
1.8 All extended over water required equipment was onboard the aircraft and met operational requirements in accordance with the Air Carriers procedures. [SRR 121.339(a-c)]	❑ YES ❑ NO ❑ N/A	**If no or N/A, explain:**

1.1.2 Appropriate Operational Equipment	
2. Were the written procedures adhered to for the Appropriate Operational Equipment?	❑ YES ❑ NO **If no, explain:**
3. Were the identified controls adhered to for the Appropriate Operational Equipment?	❑ YES ❑ NO **If no, explain:**
4. <Deleted>	

SUPPLEMENTAL INFORMATION

SRRs:

- 14 CFR 91.703 (a), "Operations of civil aircraft of U.S. registry outside of the United States."
- 14 CFR 91.705 (a), "Operations within airspace designated as minimum navigation performance specification airspace."
- 14 CFR 91.706 (a), "Operations within airspace designed as reduced vertical separation minimum airspace."
- 14 CFR 121.161 (a, b), "Airplane limitations: type of route."
- 14 CFR 121.309 (c, d, f), "Emergency equipment."
- 14 CFR 121.311 (a), "Seats, safety belts, and shoulder harnesses."
- 14 CFR 121.323 (a-f), "Instruments and equipment for operations at night."
- 14 CFR 121.325 (a-c), "Instruments and equipment for operations under IFR or over-the-top."
- 14 CFR 121.327 (a), "Supplemental oxygen: reciprocating engine powered airplanes."
- 14 CFR 121.329 (a), "Supplemental oxygen for sustenance: turbine engine powered airplanes."
- 14 CFR 121.331 (a), "Supplemental oxygen requirements for pressurized cabin airplanes: reciprocating engine powered airplanes."
- 14 CFR 121.333 (a), "Supplemental oxygen for emergency descent and for first aid: turbine-engine-powered airplanes with pressurized cabins."
- 14 CFR 121.335 (a, b), "Equipment standards."
- 14 CFR 121.339 (a-c), "Emergency equipment for extended overwater operations."
- 14 CFR 121.340 (a, b), "Emergency flotation means."
- 14 CFR 121.341 (a), "Equipment for operations in icing conditions."
- 14 CFR 121.343 (a-g), "Flight recorders."
- 14 CFR 121.349 (e), "Radio equipment for operations under VFR over routes not navigated by pilotage or for operations under IFR or over-the-top."
- 14 CFR 121.351 (a, b), "Radio and navigation equipment for extended overwater operations and for certain other operations."
- 14 CFR 121.353 (a-c), "Emergency equipment for operations over uninhabited terrain areas: flag, supplemental, and certain domestic operations."
- 14 CFR 121.355 (a), "Equipment for operations on which specialized means of navigation are used."
- 14 CFR 121.358 (a, b), "Low-altitude windshear system equipment requirements."
- 14 CFR 121.359 (e), "Cockpit voice recorders."
- 14 CFR 121.361 (b) Maintenance, Preventive Maintenance, and Alterations: Applicablity
- 14 CFR 121.549 (a, b), "Flying Equipment."
- 14 CFR 121.578 (b) Flight Operations: Cabin Ozone concentration
- 14 CFR 121.579 (c) Flight Operations: Minimum altitude for use of autopilot
- 14 CFR 121.581 (a, c), "Observer's seat: enroute inspections."
- 14 CFR 121.605, "Airplane equipment."

Other CFRs and FAA Guidance:

- 14 CFR Part 1, "Definitions."
- 14 CFR Part 91, App. C, "Operations in the North Atlantic (NAT) Minimum Navigation Performance Specifications (MNPS) Airspace."
- 14 CFR Part 91, App. G, "Operations in Reduced Vertical Separation Minimum (RVSM) Airspace."
- 14 CFR 91.215 (b), "ATC Transponder and altitude reporting equipment and use."
- 14 CFR 91.217 (b, c), "Data correspondence between automatically reported pressure altitude data and the pilot's altitude reference."
- 14 CFR 91.219 (a, b), "Altitude alerting system or device: turbojet-powered civil airplanes."
- 14 CFR 121.303, "Airplane Instruments and Equipment."
- 14 CFR 121.305, "Flight and Navigational Equipment."
- 14 CFR 121.310, "Additional Emergency Equipment."
- 14 CFR 121.313, "Miscellaneous Equipment."
- 14 CFR 121.318, "Public Address System."
- 14 CFR 121.345, "Radio Equipment."
- 14 CFR 121.347, "Radio equipment for operations under VFR over routes navigated by pilotage."
- 14 CFR 121.356, "Traffic alert and collision avoidance systems."
- 14 CFR 121.357 (a, d), "Airborne weather radar equipment requirements."
- 14 CFR 121.359 (a-d, f), "Cockpit voice recorders."
- 14 CFR 121.361 (b), "Applicability (work performed outside the U.S.)."
- 14 CFR 121.363, "Responsibility for airworthiness."
- 14 CFR 121.569 (a), "Equipment Interchange: Domestic and Flag Operations."
- 14 CFR 121.578 (b), "Cabin ozone concentration."
- 14 CFR 121.579 (c), "Minimum altitudes for use of autopilot."
- 14 CFR 121.583 (b), "Carriage of persons without compliance with the passenger-carrying requirements of this part."
- 14 CFR 121.585 (a), d, e), "Exit seating."
- FAA Order 8300.10, Vol. 2, Chap. 76, Sect.1, Par.15, "Conduct FAR Part 121/135 Proving/Validation Tests."
- FAA Order 8300.10, Vol. 2, Chap. 82, "Evaluate/Inspect Part 121 Extended-Range Operations with Two-Engine Aircraft "
- FAA Order 8400.10, Vol. 3, Chap. 1, Sect.4, Par.131: B37, – Operations in Central East Pacific (CEPAC) Composite Airspace."
- FAA Order 8400.10, Vol. 3, Chap.1, Sect.4, Par.135: B38, – North Pacific (NOPAC)."
- FAA Order 8400.10, Vol. 3, Chap.1, Sect.4, Par.149: B50, "Authorized Areas of En Route Operations, Limitations, and Procedures."
- FAA Order 8300.10, Vol. 3, Chap.43, "Monitor FAR Part 121 Extended-Range Operations with Two-Engine Aircraft (ETOPS)."
- FAA Order 8400.10, Vol. 6, Chap.2, Sect.9, Par.279, "Categories of Records."
- FAA Order 8400.12A, "Required Navigation Performance 10 (RNP10) Operations Approval."
- HBAT 98-21, "Relief of Icing Fuel Penalties Associated with Critical Fuel Calculations for

ETOPS."

- HBAT 97-02, "Approval of Aircraft and Operators for Flight in Airspace Above Flight Level 290 Where 1,000 Foot Vertical Separation is Applied."
- HBAT 97-04, "Auxiliary Power Unit (APU) Data Collection."
- HBAW 98-07, "Approval of Aircraft and Operators when RNP10 is Applied."
- HBAW 95-10, "Guidelines for Operational Approval of Global Positioning System (GPS)…"
- HBAW 94-08, "Policy Changes to the ETOPS Configuration, Maintenance and Procedures Documents."
- HBAT 94-09, "Engine Change and Verification Flights for Extended Range Operation with Two-Engine Airplanes (ETOPS) – Guidance for Operations."
- North Atlantic MNPS Airspace Operations Manual – Seventh Edition.
- Refer to Advisory Circulars using a search engine (such as ATP Navigator or Summit).